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MID-ATLANTIC POWER PATHWAY

Pepco Holdings, Inc

Environmental Footprint
Working Group Meeting

June 25, 2008

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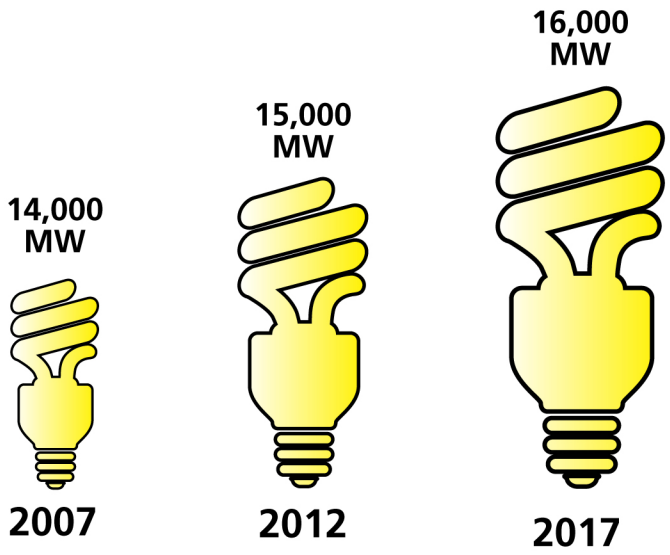
The Need for New Transmission

- It's been 25 years since the last major interstate transmission line was built in the Mid-Atlantic region
- Today's American home uses 21 percent more power than in the mid 1970s

Growing Demand for Electricity



Source: Summer peak load growth rates for Pepco Holdings' service territories (Atlantic City Electric, Delmarva Power and Pepco) based on data from the PJM Load Forecast Report, January 2007.

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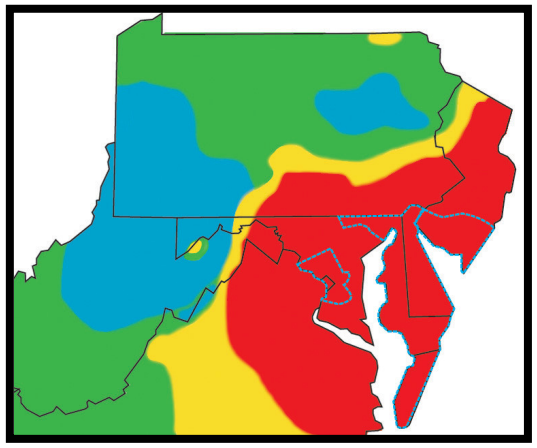
The Need for New Transmission

- The Mid-Atlantic region is one of the most heavily congested transmission areas in the nation
- Demand for power during peak usage times is projected to increase by nearly 20 percent over the next 10 years



Transmission Congestion based on PJM Data

Lowest ⟷ Highest

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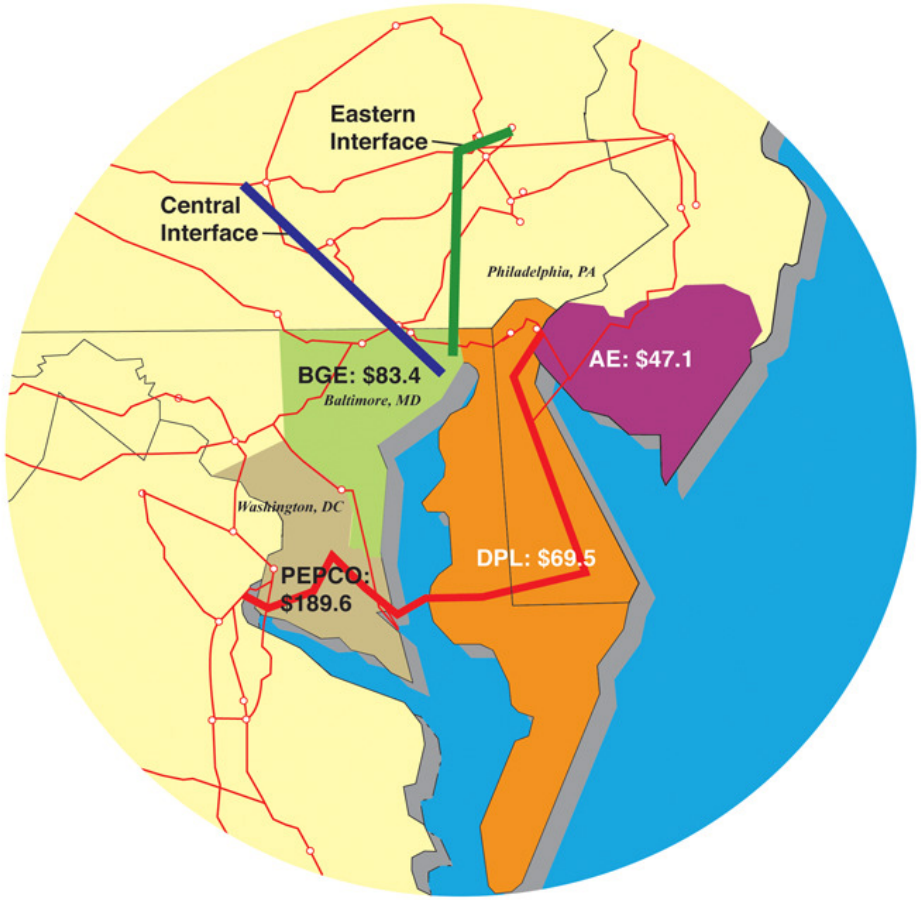
Overall Map

2007 Annual Congestion Dollars by Zone
(in millions $)



- Existing 500 kV Lines
- Mid-Atlantic Power Pathway (MAPP)
- Atlantic City Electric (AE)
- Baltimore Gas & Electric Company (BGE)
- Delmarva Power & Light (DPL)
- Potomac Electric Power Company (PEPCO)

(Source: "2007 PJM State of the Market Report")

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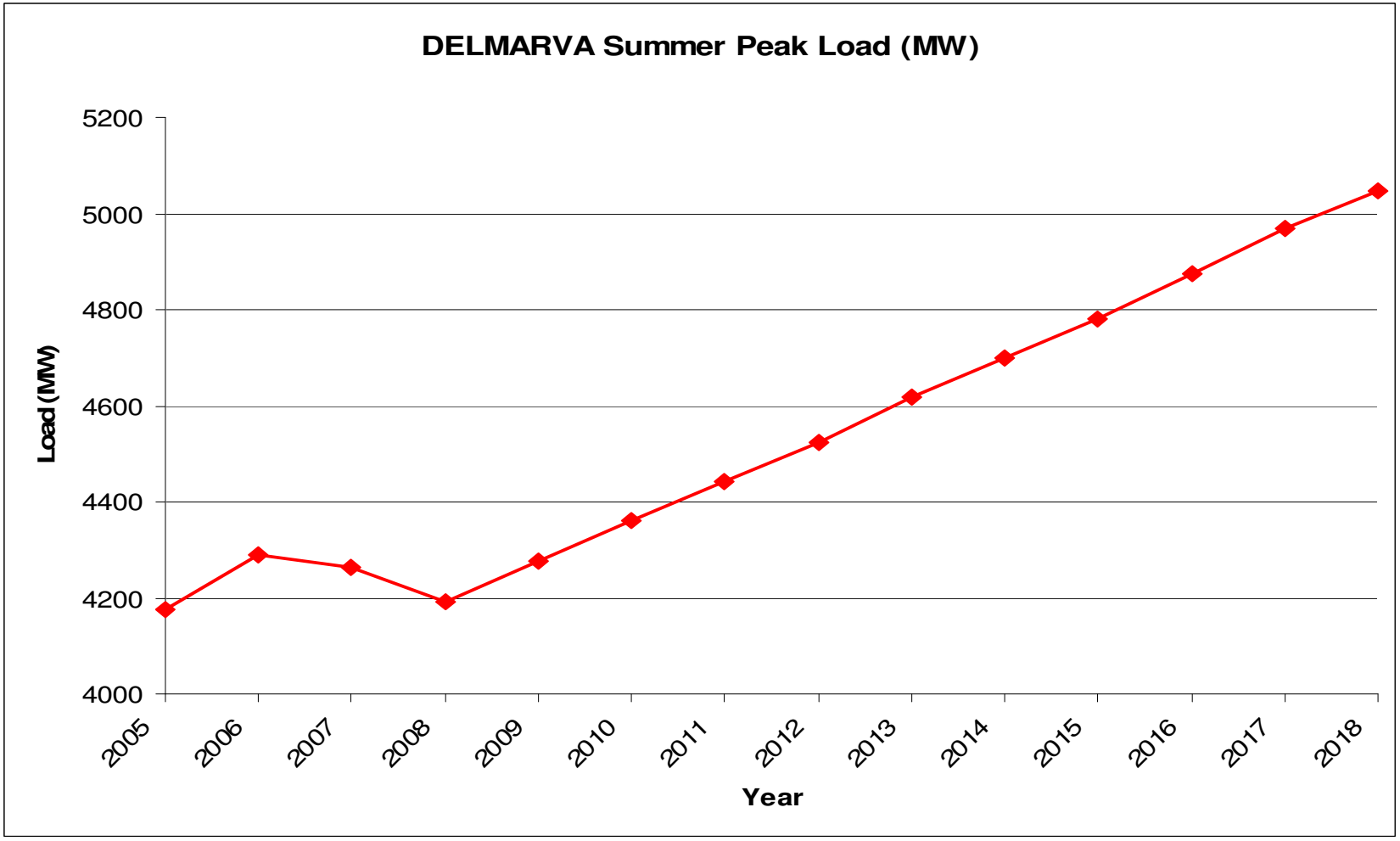
Delmarva Load



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Need for Transmission Reinforcement

Without a timely solution, the eastern and southwestern Mid-Atlantic regions will likely experience a number of unfavorable consequences.

- Reliability Issues
  - With declining transmission system margins and future uncertainties, southwestern and eastern Mid-Atlantic will not meet reliability criteria
- Higher Cost Impact
  - Congestion charges will likely rise with increased hours of transmission constraints
  - Costly RMR contracts will be used more frequently to address generation retirements
- Political Pressure.
  - Continued pressure of rising energy prices and congestion charges

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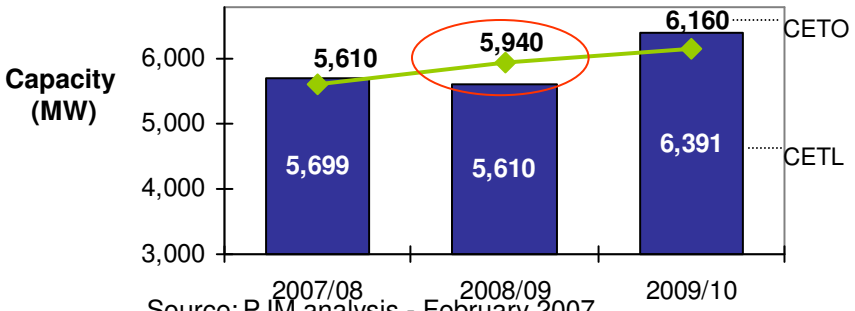
Limited Import Capabilities

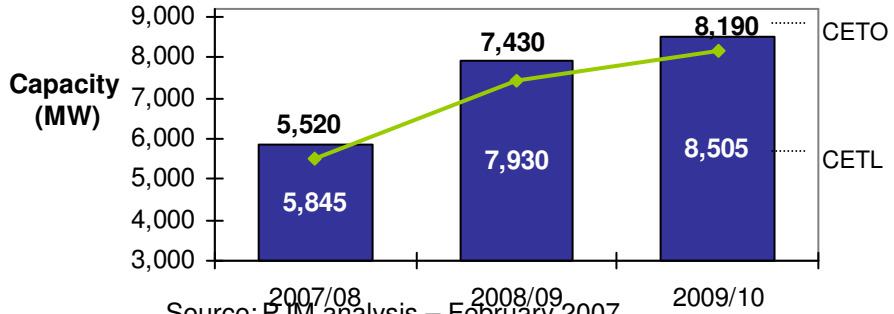
Existing import capabilities are tight and expected to decline with future load growth and changes in generation.

Southwestern Mid-Atlantic



Source: PJM analysis - February 2007.

Eastern Mid-Atlantic



Source: PJM analysis – February 2007.

- The Southwestern Mid-Atlantic import capability margin will be ≤3.8% (231 MW) over the next 3 planning years, **with a negative margin projected for 2008/2009.**
- The Eastern Mid-Atlantic import capability will be ≤6.7% (500MW) over the next 3 planning periods.
- These margins can easily be erased by unplanned generation retirements or greater than forecasted load growth

CETO – Capacity Emergency Transfer Objective ("TARGET"); CETL – Capacity Emergency Transfer Limit ("CAPABILITY")

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Need for Transmission Reinforcement

There is a major need to take steps now to reinforce the PJM transmission system serving the eastern[1] and southwestern[2] Mid-Atlantic sub-regions.

"Current Indicators"	*"Future Uncertainties"*	*"The MAPP Solution"*	*"Adequate Response Time"*
These subregions are currently approaching system limits	**Future challenges are expected to further tax transmission capabilities**	**Robust transmission solution is needed to address future uncertainties**	**Limited window to approve, permit, and build transmission solution**
• Limited import capabilities *(i.e., CETL v. CETO)* • Recent and ongoing issues with operational performance • Historic transmission congestion	• Continued high load growth • Shifting generation patterns – Retirements – Additions • Future reliability violations	• Relieve future reliability violations • Mitigate congestion • Complement other alternatives • Viable option • Enhances Security	• Long project lead times *(e.g., site, permit, design, and build)* • Competition for resources, materials, and outages

[1]Atlantic Electric and Delmarva Power are part of the eastern Mid-Atlantic sub-region
[2]Pepco is part of the southwestern Mid-Atlantic sub-region

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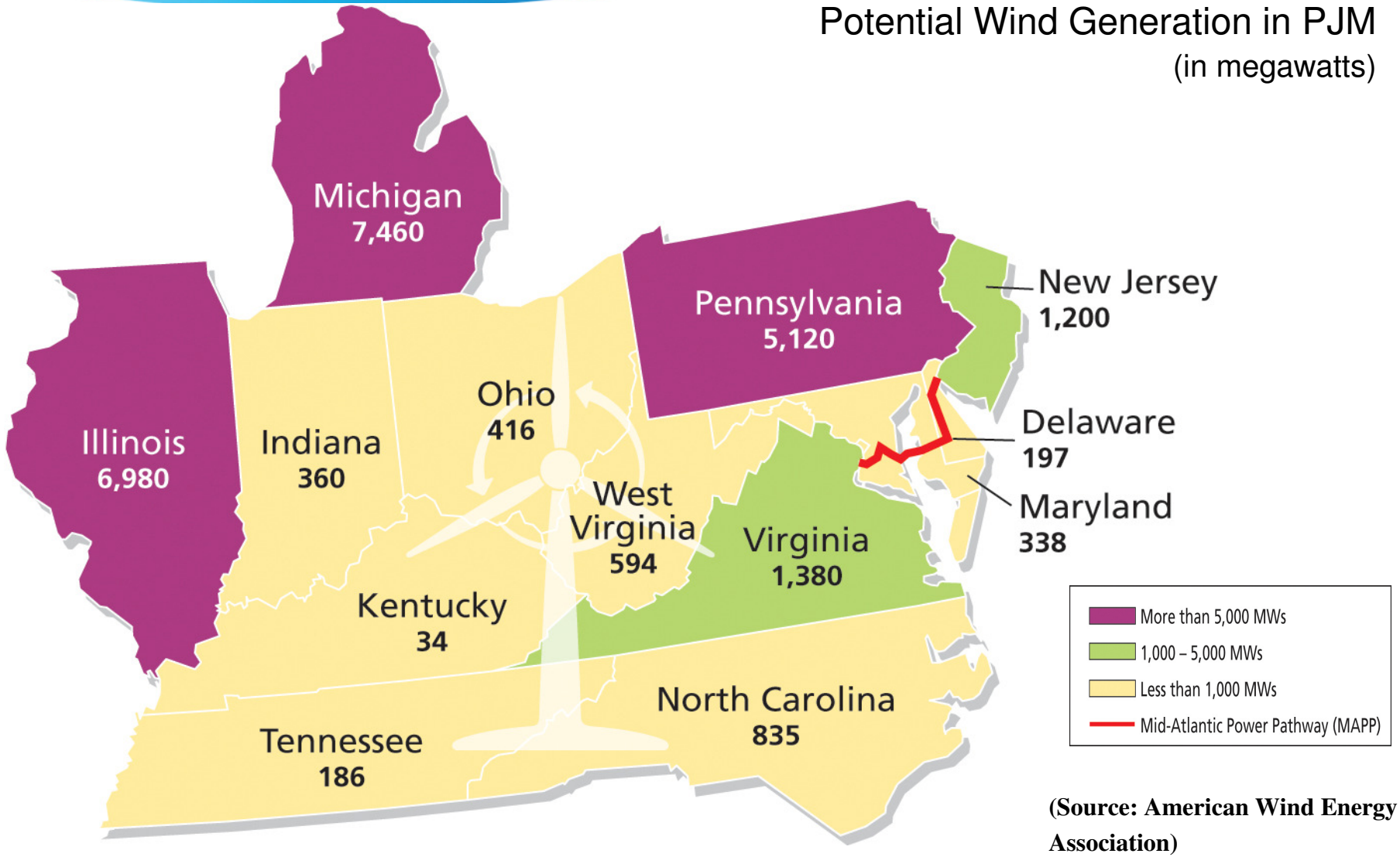
Need for Transmission to Support Renewable Energy

Potential Wind Generation in PJM
(in megawatts)



(Source: American Wind Energy Association)

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Proposed Electricity for PJM

PJM West

Biomass – 237 MW
Coal – 8,613 MW
Hydro – 356.9 MW
Methane – 95 MW
Natural Gas – 9,655 MW
Nuclear – 2,326 MW
Oil – 107 MW
Wind – 18,998 MW
Wood – 228 MW
Other – 20 MW

Total – 40,636 MW

PJM Mid-Atlantic

Biomass – 132 MW
Coal – 5,437 MW
Diesel – 12 MW
Hydro – 366 MW
Methane – 56 MW
Natural Gas – 20,120 MW
Nuclear – 3,665 MW
Oil – 918 MW
Solar – 3 MW
Wind – 18,998 MW
Other – 346 MW

Total – 39,652 MW

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Potential Transmission Solutions

PJM has approved four projects to address transmission needs in the Mid-Atlantic region

Planned Regional Transmission Projects

- AEP/AP 765 kV
- AEP/AP 500 kV
- AP/Dominion 500 kV
- PPL/PSE&G/First Energy 500 kV
- MAPP Project 500 kV
- MAPP Project 230 kV (proposed)
- Nuclear Generation
- Fossil Generation
- Substation

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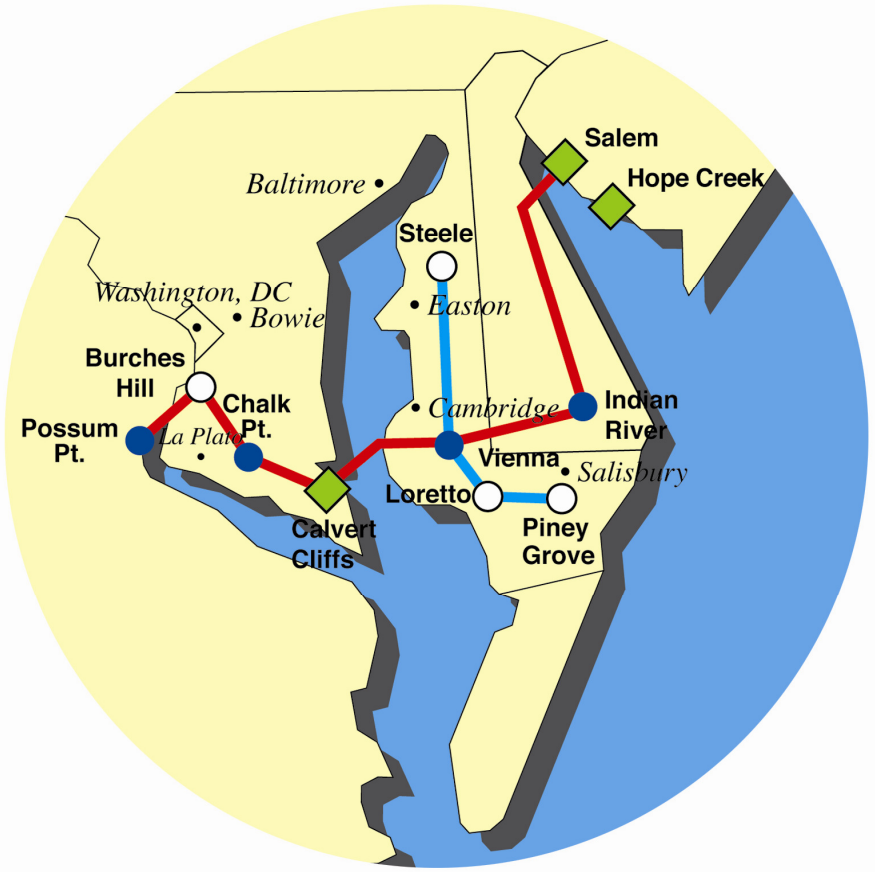
The MAPP Solution

The Mid-Atlantic Power Pathway (MAPP) is a 230-mile interstate transmission line that will enhance electric reliability and improve transmission in Washington, D.C., Maryland, Delaware and southern New Jersey



MAPP Power Line

Fossil Generation Substation

Nuclear Generation

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Customer Benefits

- MAPP will provide many benefits to all customers in the Mid-Atlantic Region, including those served by Pepco, Delmarva Power, Atlantic City Electric and other electric suppliers.
  - Improves the flow of electricity in the Mid-Atlantic Region.
  - Complements other proposed transmission projects.
  - Creates multiple paths for importing power into our growing region.
  - Creates a bigger “pipeline” for delivering new clean energy solutions such as wind, solar power and emissions-free nuclear.
  - Ensures a safe, reliable supply of electricity over the long-term.
  - Delivers lower-cost power during periods of highest demand.
  - Reduces the cost of power by reducing congestion.
  - Provides electricity needed to support economic growth and employment.

- Benefits to Delmarva:
  - An additional 500 kV transmission line into the southern Delmarva Peninsula will allow:
    - The transfer of lower cost energy from the western border of PJM into New Jersey.
    - Improve the transmission reliability onto Delmarva
    - Provide backup energy at any point across the region in support of renewable energy sources that are intermittent and may not be available at peak load times

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– System benefits and savings will occur as each project segment is completed.

  - The cost for these benefits will be shared throughout the PJM system. All 51 million customers will share in the cost.
  - We estimate the cost to be less than 40 cents per 1000kwh for the life of the transmission line.

Project Segment In Service Dates

- Segment 1: December, 2011
  - 500kV transmission line from Possum Point Substation near Dumfries, VA to Calvert Cliffs Nuclear Plant
- Segment 2: December 2012
  - 500kV transmission line from Calvert Cliffs Nuclear Plant to Indian River Power Plant (near Millsboro, DE)
- Segment 3: December 2013
  - 500kV transmission line from Indian River Power Plant to Salem/Hope Creek Nuclear Plant (Salem, NJ)

- Measures implemented during construction to minimize environmental impacts:
  - Use matting for temporary access in wetlands and travel over areas of high sensitivity for cultural resources.
  - Install protective fencing around areas of threatened and endangered plant species.
  - Implement construction timing restrictions for threatened and endangered animal species.
  - Install silt fencing in wetlands or transition areas to prevent sediment from entering wetlands or waterways.
  - Develop a construction monitoring manual and maps to summarize environmental permit conditions and mitigation measures.
  - Employ environmental monitors to ensure compliance with environmental permit conditions during construction.
  - Utilize existing ROW and existing structure to the max extent possible.

Photos of matting in wetland areas

Photos of protective fencing for sensitive species

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Summary

MAPP Description

- 500 kV interstate transmission line that meets the growing challenges of providing reliable and affordable energy to our customers
  - 500 kV line totals ~230 miles
  - Starts in Northern Virginia, crossing Maryland and proceeding up the Delmarva Peninsula to New Jersey
  - Includes additional 230kv lines to support Maryland, Delaware and NJ
- Eighty percent of the planned route utilizes existing transmission corridors and/or structures
- Estimated cost of $1.2 billion
- Targeted completion by 2014

Benefits

- **Reliability**
  - Increases import capability for southwestern and eastern Mid-Atlantic sub-regions
  - Significantly mitigates the long-term reactive problems in Eastern Mid-Atlantic sub-region
  - Improves generation stability issues for existing NJ Nuclear plants
- **Economic**
  - Significantly reduces congestion when combined with other proposed transmission and generation projects
- **Security**
  - Enhances security by providing a redundant path
- **Generation Interconnection**
  - Provides an outlet for proposed generation additions including renewable
- **Viable Option**
  - MAPP is a highly constructible project
    - Use of existing ROW and structures
    - Primarily contained in PHI service territories
    - Support of key stakeholders
- **Compatible with other proposed segments**
  - Provides a key segment in developing the most effective combination of transmission backbone enhancements for the region

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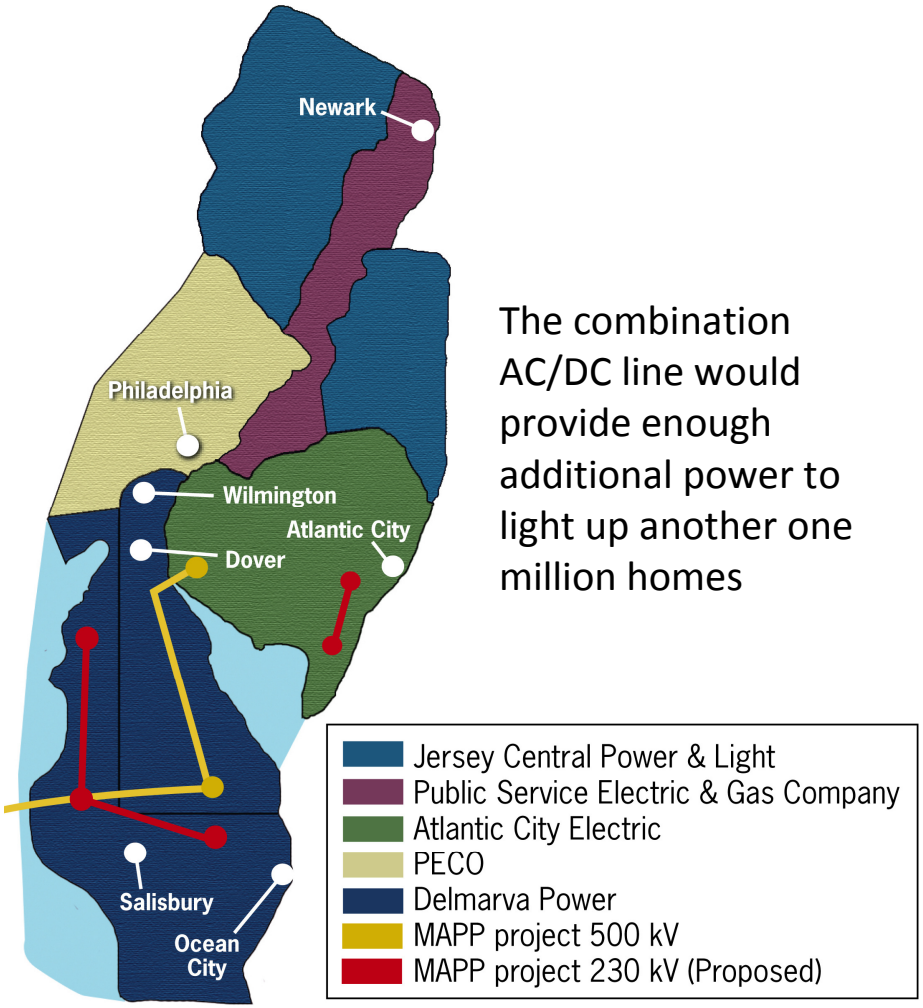
Helping the Region

Significant Benefits to the Eastern Mid-Atlantic region

- A new AC transmission line increases energy import capacity to this region by **1,500** MW
- A combination AC/DC transmission line increases energy import capacity to the region by **2,500** MW

***Note: 1 MW powers approximately 1,000 homes*



The combination AC/DC line would provide enough additional power to light up another one million homes

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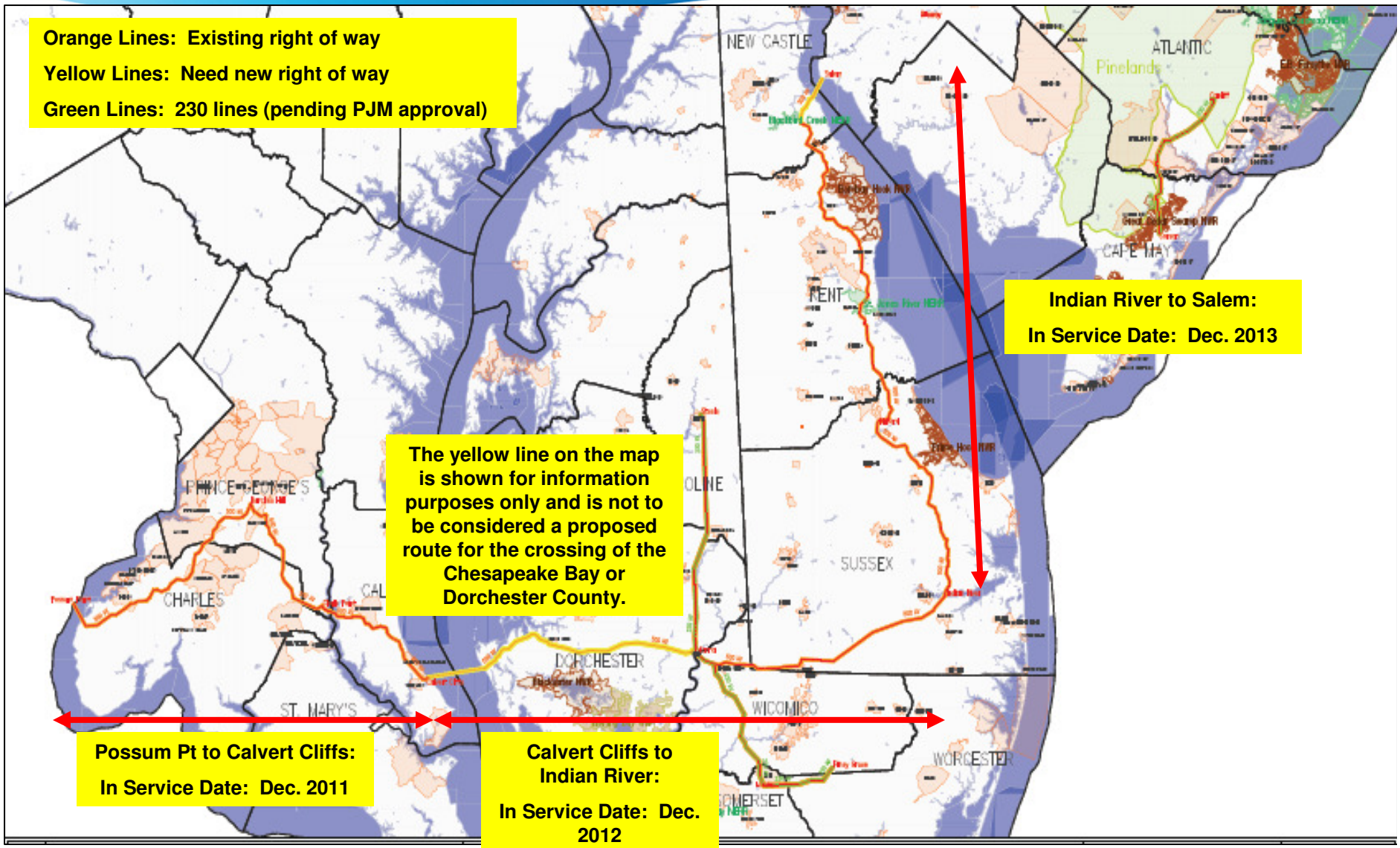
Overall Map



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QUESTIONS???